

RECEIVED
MAR 10 2005

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT
(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 62859.0001	FOR FURTHER ACTION	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/CA2004/001868	International filing date (<i>day/month/year</i>) 25 October 2004 (25-10-2004)	(Earliest) Priority date (<i>day/month/year</i>) 24 October 2003 (24-10-2003)
Applicant THE UNIVERSITY OF WESTERN ONTARIO ET AL		
This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.		
This international search report consists of a total of <u>4</u> sheets. <input checked="" type="checkbox"/> It is also accompanied by a copy of each prior art document cited in this report.		
1. Basis of the report a. With regard to the language , the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item. <input type="checkbox"/> the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)). b. <input type="checkbox"/> With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.		
2. <input type="checkbox"/> Certain claims were found unsearchable (See Box II).		
3. <input type="checkbox"/> Unity of invention is lacking (See Box III).		
4. With regard to the title . <input checked="" type="checkbox"/> the text is approved as submitted by the applicant. <input type="checkbox"/> the text has been established by this Authority to read as follows :		
5. With regard to the abstract . <input checked="" type="checkbox"/> the text is approved as submitted by the applicant. <input type="checkbox"/> the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.		
6. With regard to the drawings . a. The figure of the drawings to be published with the abstract is Figure No. 7 <input checked="" type="checkbox"/> as suggested by the applicant. <input type="checkbox"/> As selected by this authority, because the applicant failed to suggest a figure. <input type="checkbox"/> As selected by this Authority, because this figure better characterizes the invention. b. <input type="checkbox"/> None of the figures is to be published with the abstract.		

INTERNATIONAL SEARCH REPORT

International application No.
PCT/CA2004/001868

A. CLASSIFICATION OF SUBJECT MATTER IPC ² : B25J 3/04, A61B 17/00, B25J 9/00 According to International Patent Classification (IPC) or to both national classification and IPCab		
B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) IPC ² : B25J 3/04, A61B 17/00, B25J 9/00; USPC: 301/34, 128/904, 128/DIG7, 414/909, 700/245 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base, and, where practicable, search terms used) Delphion, Canadian Patents Database, USPTO website. Search terms: haptic, strain gauge, load cell, phantom.		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6377011 B1 (BEN-UR) 23 April 2002 (23-04-2002) whole document	1-13, 36, 37
Y	col. 8 lines 50-56 re: claims 36 and 37 figure 18 col. 7 lines 65-66, col. 8 lines 14 and 33-44, col. 26 lines 16-23	18, 35, 38-40
X	US 5807377 (MADHANI et al.) 15 September 1998 (15-09-1998) whole document	14-17, 19-23, 32-34, 37
Y	col. 8 lines 54-62 re: claims 15 and 37 figure 4B re: claims 14, 20 and 34	18, 24, 26-31, 35, 38-40
Y	US 6063095 (WANG et al.) 16 May 2000 (16-05-2000)	24, 26-31
Y	US 5882206 (GILLIO, ROBERT G.) 16 March 1999 (16-03-1999)	24, 26-31
X	WO 02/080783 (DYCUS et al.) 17 October 2002 (17-10-2002)	25
A	US 5623582 (ROSENBERG) 22 April 1997 (22-04-1997)	
A	US 6233504 (DAS et al.) 15 May 2001 (15-05-2001)	
Patent family members are listed in annex.		
* Special categories of cited documents : "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family	
Date of the actual completion of the international-type search 07 January 2005 (07-01-2005)		Date of mailing of the international-type search report 07 March 2005 (07-03-2005)
Name and mailing address of the ISA/CA Commissioner of Patents Canadian Patent Office - PCT Ottawa/Gatineau K1A 0C9 Facsimile No. 1-819-953-9358		Authorized officer Andrew Davidson (819) 953-4505

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.
PCT/CA2004/001868

Patent Document Cited in Search Report	Publication Date	Patent Family Member(s)	Publication Date
US6377011	23-04-2002	WO0154587 A1	02-08-2001
US5807377	15-09-1998	CA2255692 A1 CA2255934 A1 JP2002503976T T JP2002504863T T US5792135 A US5797900 A US5976122 A US6371952 B1 WO9743942 A1 WO9743943 A1	27-11-1997 27-11-1997 05-02-2002 12-02-2002 11-08-1998 25-08-1998 02-11-1999 16-04-2002 27-11-1997 27-11-1997
US6063095	16-05-2000	AT187622T T AU2131897 A AU3613300 A AU4207300 A AU4808493 A AU7601094 A CA2246713 A1 CA2330674 A1 CA2334458 A1 CN1216454 A DE69327325D D1 DE69327325T T2 EP0653922 A1 EP0883376 A1 EP1076507 A1 EP1083830 A1 ES2142351T T3 GR3032960T T3 IL125822 A JP3298013B2 B2 JP7509637T T JP2000505328T T JP2002537884 A JP2002540835T T RU2233626 C2 US5515478 A US5524180 A US5553198 A US5657429 A US5754741 A US5762458 A US5815640 A US5841950 A US5855583 A US5878193 A US5907664 A US5971976 A US6001108 A US6007550 A US6102850 A US6132441 A US6244809 B1 US6436107 B1 US6699177 B1 US6804581 B2 WO0051486 A1 WO0059384 A1 WO9403113 A1 WO9516396 A1 WO9729690 A1	15-01-2000 02-09-1997 21-09-2000 23-10-2000 03-03-1994 03-07-1995 21-08-1997 08-09-2000 12-10-2000 12-05-1999 20-01-2000 27-07-2000 24-05-1995 16-12-1998 21-02-2001 21-03-2001 16-04-2000 31-07-2000 06-07-2003 02-07-2002 26-10-1995 09-05-2000 12-11-2002 03-12-2002 10-08-2004 07-05-1996 04-06-1996 03-09-1996 12-08-1997 19-05-1998 09-06-1998 29-09-1998 24-11-1998 05-01-1999 02-03-1999 25-05-1999 26-10-1999 14-12-1999 28-12-1999 15-08-2000 17-10-2000 12-06-2001 20-08-2002 02-03-2004 12-10-2004 08-09-2000 12-10-2000 17-02-1994 22-06-1995 21-08-1997

Continued...

US5882206	16-03-1999	AU5380396 A	16-10-1996
		US5704791 A	06-01-1998
		US5755577 A	26-05-1998
		US5791908 A	11-08-1998
		US5800177 A	01-09-1998
		US5800178 A	01-09-1998
		WO9630885 A1	03-10-1996
WO02080783	17-10-2002	CA2440309 A1	17-10-2002
		EP1372494 A1	02-01-2004
		JP2004524122T T	12-08-2004
US5623582	22-04-1997	CA2205361 A1	30-05-1996
		DE69532536D D1	11-03-2004
		DE69532536T T2	23-12-2004
		EP0803114 A1	29-10-1997
		US5821920 A	13-10-1998
		US6037927 A	14-03-2000
		US6215470 B1	10-04-2001
		US6323837 B1	27-11-2001
		US6654000 B2	25-11-2003
		US2004066369 A1	08-04-2004
		WO9616397 A1	30-05-1996
US6233504	15-05-2001	US6385509 B2	07-05-2002

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet 1

of 1

Complete if Known

Application Number	
Filing Date	
First Named Inventor	Tavakoli, Seyed M.
Art Unit	
Examiner Name	
Attorney Docket Number	62859.0001

U. S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
		US- 6377011	04-23-2002	BEN-UR	whole document
		US- 5807377	09-15-1998	MADHANI	whole document
		US- 6063095	05-16-2000	WANG et al	
		US- 5882206	03-16-1999	GILLIO, ROBERT G.	
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			
		US-			

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T ⁶
		Country Code ³ Number ² Kind Code ⁵ (if known)				
		WO	10-17-2002	DYCUS		
	</					

Examiner
SignatureDate
Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by Translation is attached. ⁶ Applicant is to place a check mark here if English language.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

WORLD
Pending Patent Application
Assignment

MILLER THOMSON
Daryl W. Schnurr

In consideration of One Dollar (\$1.00) and other good and valuable consideration paid to us by
THE UNIVERSITY OF WESTERN ONTARIO

Stevenson Lawson Building - 319, 1151 Richmond Street, London, Ontario, Canada N6A 5B8
hereinafter called the Assignee, the receipt of which is hereby acknowledge, we do hereby sell and
assign unto the said Assignee, all our right, title and interest worldwide in and to our invention
relating to


FORCE REFLECTIVE ROBOTIC CONTROL SYSTEM AND MINIMALLY INVASIVE
SURGICAL DEVICE

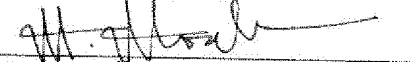
as fully described and claimed in the application for a patent for such invention and all our interest
to our corresponding right, title and interest in and to any patent which may issue therefor

SIGNED at London, Ontario

this 20th day of October, 2004


Signature of 1st inventor


Signature of 2nd inventor


Signature of 3rd inventor

STATEMENT BY WITNESS

I, Ashraf Mesbah Nejad

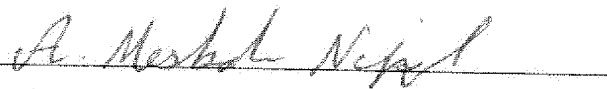
whose full post office address is

#32-550 Platts Lane, London ON, N6G-3A9
Canada

was personally present and did see

SEYED MAHDI TAVAKOLI, RAJNIKANT V. PATEL and MEHRDAD (nmi) MOALLEM

who are know to me, duly sign and execute the above Assignment.


Signature

I, RAVI GUPTA

WHOSE FULL POST OFFICE ADDRESS IS,

1824 ATTAKANDACH RD, LONDON, ONTARIO
N6G-3N4

WAS PERSONALLY PRESENT AND DID SEE

SEYED MAHDI TAVAKOLI, RAJNIKANT V. PATEL

WHO ARE KNOWN TO ME, DULY SIGN AND EXECUTE THE ABOVE
ASSIGNMENT.



OCT 21, 2004

RECORDATION FORM COVER SHEET
PATENTS ONLY

To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.

1. Name of conveying party(ies)

Sayed Mahdi Tavakoli
Rajkant (nmi) Patel
Mehrdad (nmi) Moallem

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

3. Nature of conveyance/Execution Date(s):

Execution Date(s) October 20, 2004

- ☒ Assignment ☐ Merger
☐ Security Agreement ☐ Change of Name
☐ Joint Research Agreement
☐ Government Interest Assignment
☐ Executive Order 9424, Confirmatory License
☐ Other _____

2. Name and address of receiving party(ies)

Name: The University of Western Ontario

Internal Address: _____

Street Address: Stevenson Lawson Building - 319,

1151 Richmond Street

City: London

State: Ontario

Country: Canada

Zip: N6A 5B8

Additional name(s) & address(es) attached? ☐ Yes ☒ No

4. Application or patent number(s):

A. Patent Application No.(s)

☒ This document is being filed together with a new application.
B. Patent No.(s)

Additional numbers attached? ☐ Yes ☒ No

5. Name and address to whom correspondence concerning document should be mailed:

Name: Daryl W. Schnurr, Miller Thomson LLP

Internal Address: _____

Street Address: Accelerator Building, 295 Hagey Blvd.

Suite 300

City: Waterloo

State: Ontario

Zip: N2L 6R5

Phone Number: (519) 579-3660

Fax Number: (519) 576-2030

Email Address: dschnurr@millerthomson.com

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00

- ☒ Authorized to be charged by credit card
☐ Authorized to be charged to deposit account
☐ Enclosed
☐ None required (government interest not affecting title)

8. Payment Information

a. Credit Card Last 4 Numbers 5854
Expiration Date 11/08

b. Deposit Account Number _____

Authorized User Name _____

9. Signature:

Signature

April 21, 2006

Date

DARYL W. SCHNURR
Name of Person Signing

Total number of pages including cover sheet, attachments, and documents: 2